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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,458	08/05/2003	Stephen Douglas	SCF02A-CIP	6728
24222	7590	09/19/2005	EXAMINER	
MAINE & ASMUS 100 MAIN STREET P O BOX 3445 NASHUA, NH 03061-3445			HUSBAND, SARAH E	
			ART UNIT	PAPER NUMBER
			1746	

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

6.2

<b>Office Action Summary</b>	Application No. 10/634,458	Applicant(s) DOUGLAS ET AL.	
	Examiner Sarah E. Husband	Art Unit 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 August 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.  
     4a) Of the above claim(s) 1-15 and 24-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

*[Handwritten mark]*

## DETAILED ACTION

### *Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-15, drawn to a pressurized system, classified in class 134, subclass 105.
- II. Claims 16-23, drawn to a pressurized fluid and additive delivery system, classified in class 134, subclass 94.1.
- III. Claims 24-26, drawn to a method, classified in class 134, subclass 34.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the system can be used to practice a different process such as varying pressures or maintaining a constant temperature throughout the process.

Inventions II and III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the system can be used to practice a different process such as varying pressures or maintaining a constant temperature throughout the process.

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions. Invention I is directed toward a process chamber processing system which could be used in a number of different processes including wafer cleaning. Invention II is directed toward an elevated pressure and temperature fluid delivery system with additives, which would be directed toward pressure washers having multiple fluid cleaners.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Vernon C. Maine on August 15, 2005 a provisional election was made with traverse to prosecute the invention of Group II, claims 16-23. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-15 and 24-26 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 16 recites the limitation "said mixing valve" in line 18, page 23. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US Patent No. 5,505,539).

Lee discloses a process system having a fluid delivery system (Fig. 6, Item 9) with a pump (Fig. 6, Item 7) and heater (Fig. 6, It. 3) and also an additive delivery system (coating), pump (Fig. 6, It. 1) and heater (Fig. 6, It. 3). Lee also discloses the two streams mixed together and the individual flows controlled by a flow meter, which is operated by a controller (Fig. 6, Item 15). Although Lee does not specifically state that there is a directional valve located where the fluids are combined, valves are well known in the art and

Art Unit: 1746

commonly used to control liquid flows. Lee further discloses a static mixer (Fig. 6, It. 5; Table 2) and a heater used after the solution has been mixed (col. 9, ll. 29-32). This would suggest the heater is placed between the mixer and the process system and would also heat to a final temperature (process temperature). Lee discloses a fluid recirculating line which would allow the fluid to be reheated and directed from the process system (col. 9, ll. 32-36). Lee also discloses pressurizing and heating the fluids to temperatures and pressures of 45-60°C and 1500-2200psi (10.3 MPa-15.2 MPa), which is higher than the  $C_P$  and  $C_T$  of  $CO_2$  at 7.375 MPa and 31°C and therefore considered a supercritical fluid (col. 10). Lee also describes using a supercritical fluid in the Background and Detailed Description, col. 4-6. (<http://www.sciencemadesimple.net/pressure.php>; CRC Handbook of Chemistry and Physics, 85<sup>th</sup> Edition).

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art not described are Nielsen (US 5,312,862) and Vaartstra (US 6,149,828), who disclose processes having mixing and heating of separate fluid lines.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah E. Husband whose telephone number is (571) 272-8387. The examiner can normally be reached on M-F 7:30-4.

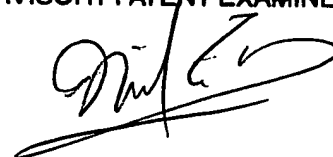
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached at (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1746

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SEH

**MICHAEL BARR**  
**SUPERVISORY PATENT EXAMINER**

A handwritten signature in black ink, appearing to read 'Michael Barr', with a long horizontal stroke extending from the bottom of the signature.